

PATENT
USSN 10/044,692
TTC Docket 002640US
Geron Docket 018/213c

CLAIM AMENDMENTS

1. *(Currently amended)* A composition comprising an isolated recombinant nucleic acid a recombinant nucleic acid vector or plasmid that encodes:
 - a) human telomerase reverse transcriptase (hTRT) protein (SEQ. ID NO:2); or
 - b) a polypeptide fragment of SEQ. ID NO:2 consisting of at least 20 contiguous amino acids of SEQ. ID NO:2 which is immunogenic for a specific response against hTRT (SEQ. ID NO:2).

2 to 9. CANCELLED

10. *(Previously presented)* The composition of claim 1, further comprising an adjuvant.
11. *(Withdrawn) (Currently amended)* A method for eliciting an immune response to an antibody response specific for human telomerase reverse transcriptase in a subject, comprising administering to the subject the composition of claim 1.
12. *(Withdrawn) (Currently amended)* A method for eliciting an immune response to an antibody response specific for human telomerase reverse transcriptase in a subject, comprising administering to the subject the composition of claim 21.
13. *(Withdrawn) (Currently amended)* A method for eliciting an immune response to an antibody response specific for human telomerase reverse transcriptase in a subject, comprising administering to the subject the composition of claim 23.
14. *(Withdrawn) (Currently amended)* A method for eliciting an immune response to an antibody response specific for human telomerase reverse transcriptase in a subject, comprising administering to the subject the composition of claim 25.
15. *(Withdrawn) (Currently amended)* A method for eliciting an immune response to an antibody response specific for human telomerase reverse transcriptase in a subject, comprising administering to the subject the composition of claim 30.

16 to 18. CANCELLED

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19. *(Currently amended)* The composition of claim 1, ~~in an amount wherein said nucleic acid is comprising an amount of said nucleic acid that encodes a polypeptide effective for eliciting an immunological response specific for hTRT protein (SEQ. ID NO:2)~~ in a mammalian subject.
20. *(Original)* The composition of claim 1, packaged in a container along with an indication of how the composition is to be administered.
21. *(Currently amended)* A composition comprising an isolated recombinant nucleic acid that encodes a polypeptide fragment consisting essentially of at least 10 contiguous amino acids of SEQ. ID NO:2 which is A recombinant nucleic acid vector or plasmid that encodes hTRT (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of least 10 contiguous amino acids, wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).
22. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid encodes full-length hTRT protein (SEQ. ID NO:2).
23. *(Currently amended)* The nucleic acid composition of claim 21, ~~wherein the nucleic acid which encodes a polypeptide fragment consisting essentially of a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids of SEQ. ID NO:2.~~
24. *(Currently amended)* The nucleic acid composition of claim 21, ~~wherein the nucleic acid which encodes a polypeptide fragment consisting essentially of a fragment of SEQ. ID NO:2 of at least 50 contiguous amino acids of SEQ. ID NO:2.~~
25. *(Previously presented)* A composition comprising an isolated nucleic acid that encodes a chimeric protein consisting of an immunogenic fragment of SEQ. ID NO:2 fused to another protein that enhances the immune response to said fragment of SEQ. ID NO:2.
26. *(Previously presented)* The nucleic acid composition of claim 25, wherein the other protein is keyhole limpet hemocyanin (KLH).
27. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is DNA.
28. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is RNA.

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29. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a plasmid.
30. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a viral vector.
31. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in an adenovirus vector.
32. *(Previously presented)* The nucleic acid composition of claim 1, wherein the nucleic acid is contained in a herpes virus or Epstein Barr Virus vector.
33. *(Currently amended)* The nucleic acid composition of claim 1, wherein the nucleic acid further comprises a promoter to control expression of said hTRT protein or fragment.
A recombinant nucleic acid in which an encoding region is operably linked to a promoter that controls expression of said encoding region,
wherein said encoding region encodes hTRT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids; and
wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).

34 to 38. CANCELLED

39. *(Currently amended)* An isolated recombinant nucleic acid that encodes:
 - a) human telomerase reverse transcriptase (hTRT) protein (SEQ. ID NO:2); or
 - b) a polypeptide fragment consisting essentially of an amino acid sequence encoded in A recombinant nucleic acid vector or plasmid that encodes hTRT (SEQ. ID NO:2), or a fragment of SEQ. ID NO:2, wherein said vector or plasmid comprises at least about 50 consecutive bases of SEQ. ID NO:1;
and wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).
40. *(Currently amended)* The nucleic acid of claim 39, which encodes wherein said fragment is encoded by at least about 100 consecutive bases of SEQ. ID NO:1.

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41. *(Currently amended)* An isolated recombinant nucleic acid comprising a promoter and a sequence encoding an hTRT peptide fragment, wherein said encoding sequence consists essentially of at least 50 consecutive bases of SEQ. ID NO:1; wherein said promoter controls expression of said encoding sequence; an encoding region operably linked to a promoter that controls expression of said encoding region, wherein said encoding region encodes hTRT protein (SEQ. ID NO:2) or a fragment of SEQ. ID NO:2, wherein said encoding region comprises at least about 50 consecutive bases of SEQ. ID NO:1; and wherein the recombinant nucleic acid wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).
42. *(Currently amended)* The nucleic acid of claim 41, wherein said encoding sequence consists essentially of said fragment is encoded by at least about 200 consecutive bases of SEQ. ID NO:1.
43. *(Currently amended)* An isolated recombinant nucleic acid that encodes a polypeptide consisting essentially of at least 10 contiguous amino acids of SEQ. ID NO:2, which is a fragment of SEQ. ID NO:2, wherein said fragment consists of at least 50 consecutive amino acids, and wherein said fragment does not have telomerase catalytic activity when cotranslated with telomerase RNA component, but which wherein said fragment is immunogenic for a specific response against hTRT (SEQ. ID NO:2).
- 44 to 46. CANCELLED.
47. *(Previously presented)* The nucleic acid of claim 43, further comprising a promoter to control expression of said polypeptide.
48. *(Previously presented)* The nucleic acid of claim 43, contained in a plasmid vector.
49. *(Previously presented)* The nucleic acid of claim 43, contained in a viral vector.
50. *(Previously presented)* The nucleic acid of claim 43, contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.

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51. *(Previously presented)* The composition of claim 25, wherein said nucleic acid further comprises a promoter to control expression of said chimeric protein.
52. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a plasmid vector.
53. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in a viral vector.
54. *(Previously presented)* The composition of claim 25, wherein the nucleic acid is contained in an adenovirus vector, a herpes virus vector, or Epstein Barr Virus vector.
55. *(New)* The nucleic acid composition of claim 30, wherein the nucleic acid also contains viral sequences for replication and packaging of the vector.
56. *(New)* The nucleic acid composition of claim 21, wherein said encoding region comprises altered codons selected to increase the rate of peptide expression.
57. *(New)* A composition comprising an isolated RNA encoding a fragment of SEQ. ID NO:2 of at least 20 contiguous amino acids which is immunogenic for a specific response against hTRT (SEQ. ID NO:2).